RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: __10/575,696__

Source: __TFWP__

Date Processed by STIC: __5-1-06__

ENTERED

IFWP

RAW SEQUENCE LISTING   DATE: 05/01/2006
PATENT APPLICATION: US/10/575,696   TIME: 09:43:48

Input Set : A:\13751-019US1.TXT
Output Set: N:\CRF4\05012006\J575696.raw

```
 4 <110> APPLICANT: Prentice, Holly
 5         Caamano, Louisa
 8 <120> TITLE OF INVENTION: FLP-mediated Recombination
11 <130> FILE REFERENCE: 13751-019US1
13 <140> CURRENT APPLICATION NUMBER: US/10/575,696
13 <141> CURRENT FILING DATE: 2006-04-13
13 <150> PRIOR APPLICATION NUMBER: PCT/US2004/033868
14 <151> PRIOR FILING DATE: 2004-10-14
16 <150> PRIOR APPLICATION NUMBER: US 60/511,610
17 <151> PRIOR FILING DATE: 2003-10-14
19 <160> NUMBER OF SEQ ID NOS: 5
21 <170> SOFTWARE: FastSEQ for Windows Version 4.0
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 5130
25 <212> TYPE: DNA
26 <213> ORGANISM: Artificial Sequence
28 <220> FEATURE:
29 <223> OTHER INFORMATION: Synthetic construct
31 <400> SEQUENCE: 1
32 cgcgtgtgag cggataacaa tttcacacag gaaacagcta tgaccatgat tacgccaagc 60
33 ttgacattga ttattgacta gttattaata gtaatcaatt acggggtcat tagttcatag 120
34 cccatatatg gagttccgcg ttacataact tacggtaaat ggcccgcctg gctgaccgcc 180
35 caacgacccc cgcccattga cgtcaataat gacgtatgtt cccatagtaa cgccaatagg 240
36 gactttccat tgacgtcaat gggtggagta tttacggtaa actgcccact ggcagtaca 300
37 tcaagtgtat catatgccaa gtacgccccc tattgacgtc aatgacggta aatggcccgc 360
38 ctggcattat gcccagtaca tgaccttatg ggactttcct acttggcagt acatctacgt 420
39 attagtcatc gctattacca tggtgatgcg gttttggcag tacatcaatg ggcgtggata 480
40 gcggtttgac tcacggggat ttccaagtct ccacccccatt gacgtcaatg ggagtttgtt 540
41 ttggcaccaa aatcaacggg actttccaaa atgtcgtaac aactccgccc cattgacgca 600
42 aatgggcggt aggcgtgtac ggtgggaggt ctatataagc agagctcgtt tagtgaaccg 660
43 tcagatcgcc tggagacgcc atccacgctg ttttgacctc catagaagac accgggaccg 720
44 atccagcctc cgcggccggg aacggtgcat tggaacgcgg attccccgtg ccaagagtga 780
45 cgtaagtacc gcctatagag tctataggcc caccccccttg gcttcttatg catgctatac 840
46 tgtttttggc ttggggtcta tacaccccccg cttcctcatg ttataggtga tggtatagct 900
47 tagcctatag gtgtgggtta ttgaccatta ttgaccactc ccctattggt gacgatactt 960
48 tccattacta atccataaca tggctctttg ccacaactct ctttattggc tatatgccaa 1020
49 tacactgtcc ttcagagact gacacggact ctgtattttt acaggatggg gtctcattta 1080
50 ttatttacaa attcacatat acaacaccac cgtccccagt gcccgcagtt tttattaaac 1140
51 ataacgtggg atctccacgc gaatctcggg tacgtgttcc ggaacggtgg agggcagtgt 1200
52 agtctgagca gtactcgttg ctgccgcgcg cgccaccaga cataatagct gacagactaa 1260
53 cagactgttc ctttccatgg gtcttttctg cagtcaccgt ccttcacacg gctagcgttt 1320
54 aaacttaagc ttggtaccga gctcggatcc actagtccag tgtggtggaa ttctgcagat 1380
55 atccagcaca gtggcggccg ctcgagtcta gagggcccgt ttaaacccgc tgatcagcct 1440
```

```
 56 cgactgtgcc ttctagttgc cagccatctg ttgtttgccc ctccccgtg ccttccttga 1500
 57 ccctggaagg tgccactccc actgtccttt cctaataaaa tgaggaaatt gcatcgcatt 1560
 58 gtctgagtag gtgtcattct attctggggg gtggggtggg gcaggacagc aaggggggagg 1620
 59 attgggaaga caatagcagg catgctgggg atgcggtggg ctctatggct tctgaggcgg 1680
 60 aaagaaccag ctggggctct aggggtatc cccacgcgcc ctgtagcggc gcattacgcg 1740
 61 cggcgggtgt ggtggttacg cgcagcgtga ccgctacact tgccagcgcc ctagcgcccg 1800
 62 ctcctttcgc ttcttccct tcctttctcg ccacgttcgc cggctttccc cgtcaagctg 1860
.63 taaatcgggg gctcccttta gggttccgat ttagtgcttt acggcacctc gaccccaaaa 1920
 64 aacttgatta gggtgatggt tcacgtacct agaagttcct attccgaagt tcctattctc 1980
 65 tagaaagtat aggaacttcc ttgggggttc gaccattgaa ctgcatcgtc gccgtgtccc 2040
 66 aaaatatggg gattggcaag aacggagacc taccctggcc tccgctcagg aacgagttca 2100
 67 agtacttcca aagaatgacc acaacctctt cagtggaagg taaacagaat ctggtgatta 2160
 68 tgggtaggaa aacctggttc tccattcctg agaagaatcg acctttaaag gacagaatta 2220
 69 atatagttct cagtagagaa ctcaaagaac caccacgagg agctcatttt cttgccaaaa 2280
 70 gtttggatga tgccttaaga cttattgaac aaccggaatt ggcaagtaaa gtagacatgg 2340
 71 tttggatagt cggaggcagt tctgtttacc aggaagccat gaatcaacca ggccacctca 2400
 72 gactctttgt gacaaggatc atgcaggaat ttgaaagtga cacgtttttc ccagaaattg 2460
 73 atttggggaa atataaactt ctcccagaat acccaggcgt cctctctgag gtccaggagg 2520
 74 aaaaaggcat caagtataag tttgaagtct acgagaagaa agactaagta tacaacttgt 2580
 75 ttattgcagc ttataatggt tacaaataaa gcaatagcat cacaaatttc acaaataaag 2640
 76 cattttttc actgcattct agttgtggtt tgtccaaact catcaatgta tcttatcatg 2700
 77 tctggtatac cgtcgacctc tagctagagc ttggcgtaat catggtcata gctgtttcct 2760
 78 gtgtgaaatt gttatccgct cacaattcca cacaacatac gagccggaag cataaagtgt 2820
 79 aaagcctggg gtgcctaatg agtgagctaa ctcacattaa ttgcgttgcg ctcactgccc 2880
 80 gctttccagt cgggaaacct gtcgtgccag ctgcattaat gaatcggcca acgcgcgggg 2940
 81 agaggcggtt tgcgtattgg gcgctcttcc gcttcctcgc tcactgactc gctgcgctcg 3000
 82 gtcgttcggc tgcggcgagc ggtatcagct cactcaaagg cggtaatacg gttatccaca 3060
 83 gaatcagggg ataacgcagg aaagaacatg tgagcaaaag gccagcaaaa ggccaggaac 3120
 84 cgtaaaaagg ccgcgttgct ggcgtttttc cataggctcc gccccctga cgagcatcac 3180
 85 aaaaatcgac gctcaagtca gaggtggcga aacccgacag gactataaag ataccaggcg 3240
 86 tttcccctg gaagctccct cgtgcgctct cctgttccga ccctgccgct taccggatac 3300
 87 ctgtccgcct ttctcccttc gggaagcgtg gcgctttctc atagctcacg ctgtaggtat 3360
 88 ctcagttcgg tgtaggtcgt tcgctccaag ctgggctgtg tgcacgaacc ccccgttcag 3420
 89 cccgaccgct gcgccttatc cggtaactat cgtcttgagt ccaacccggt aagacacgac 3480
 90 ttatcgccac tggcagcagc cactggtaac aggattagca gagcgaggta tgtaggcggt 3540
 91 gctacagagt tcttgaagtg gtggcctaac tacggctaca ctagaaggac agtatttggt 3600
 92 atctgcgctc tgctgaagcc agttaccttc ggaaaaagag ttggtagctc ttgatccggc 3660
 93 aaacaaacca ccgctggtag cggtggtttt tttgtttgca agcagcagat tacgcgcaga 3720
 94 aaaaaaggat ctcaagaaga tcctttgatc ttttctacgg ggtctgacgc tcagtggaac 3780
 95 gaaaactcac gttaagggat tttggtcatg agattatcaa aaaggatctt cacctagatc 3840
 96 cttttaaatt aaaaatgaag ttttaaatca atctaaagta tatatgagta aacttggtct 3900
 97 gacagttacc aatgcttaat cagtgaggca cctatctcag cgatctgtct atttcgttca 3960
 98 tccatagttg cctgactccc cgtcgtgtag ataactacga tacgggaggg cttaccatct 4020
 99 ggccccagtg ctgcaatgat accgcgagac ccacgctcac cggctccaga tttatcagca 4080
100 ataaaccagc cagccggaag ggccgagcgc agaagtggtc ctgcaacttt atccgcctcc 4140
101 atccagtcta ttaattgttg ccgggaagct agagtaagta gttcgccagt taatagtttg 4200
102 cgcaacgttg ttgccattgc tacaggcatc gtggtgtcac gctcgtcgtt ggtatggct 4260
103 tcattcagct ccggttccca acgatcaagg cgagttacat gatccctcat gttgtgcaaa 4320
104 aaagcggtta gctccttcgg tcctccgatc gttgtcagaa gtaagttggc cgcagtgtta 4380
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/575,696

DATE: 05/01/2006
TIME: 09:43:48

Input Set : A:\13751-019US1.TXT
Output Set: N:\CRF4\05012006\J575696.raw

```
105 tcactcatgg ttatggcagc actgcataat tctcttactg·tcatgccatc cgtaagatgc 4440
106 ttttctgtga ctggtgagta ctcaaccaag tcattctgag aatagtgtat gcggcgaccg 4500
107 agttgctctt gcccggcgtc aatacgggat aataccgcgc cacatagcag aactttaaaa 4560
108 gtgctcatca ttggaaaacg ttcttcgggg cgaaaactct caaggatctt accgctgttg 4620
109 agatccagtt cgatgtaacc cactcgtgca cccaactgat cttcagcatc ttttactttc 4680
110 accagcgttt ctgggtgagc aaaaacagga aggcaaaatg ccgcaaaaaa gggaataagg 4740
111 gcgacacgga aatgttgaat actcatactc ttcctttttc aatattattg aagcatttat 4800
112 cagggttatt gtctcatgag cggatacata tttgaatgta tttagaaaaa taaacaaata 4860
113 ggggttccgc gcacatttcc ccgaaaagtg ccacctgacg tcgacggatc gggagatctc 4920
114 ccgatcccct atggtgcact ctcagtacaa tctgctctga tgccgcatag ttaagccagt 4980
115 atctgctccc tgcttgtgtg ttggaggtcg ctgagtagtg cgcgagcaaa atttaagcta 5040
116 caacaaggca aggcttgacc gacaattgca tgaagaatct gcttagggtt aggcgttttg 5100
117 cgctgcttcg cgatgtacgg gccagatata                                  5130
121 <210> SEQ ID NO: 2
122 <211> LENGTH: 7245
123 <212> TYPE: DNA
124 <213> ORGANISM: Artificial Sequence
126 <220> FEATURE:
127 <223> OTHER INFORMATION: Synthetic construct
129 <400> SEQUENCE: 2
130 gatccgtgag cggataacaa tttcacacag gaaacagcta tgaccatgat tacgccaagc 60
131 ttgacattga ttattgacta gttattaata gtaatcaatt acggggtcat tagttcatag 120
132 cccatatatg gagttccgcg ttacataact tacggtaaat ggcccgcctg gctgaccgcc 180
133 caacgacccc cgcccattga cgtcaataat gacgtatgtt cccatagtaa cgccaatagg 240
134 gactttccat tgacgtcaat gggtggagta tttacggtaa actgcccact tggcagtaca 300
135 tcaagtgtat catatgccaa gtacgccccc tattgacgtc aatgacggta aatggcccgc 360
136 ctggcattat gcccagtaca tgaccttatg ggactttcct acttggcagt acatctacgt 420
137 attagtcatc gctattacca tggtgatgcg gttttggcag tacatcaatg ggcgtggata 480
138 gcggtttgac tcacggggat ttccaagtct ccaccccatt gacgtcaatg ggagtttgtt 540
139 ttggcaccaa aatcaacggg actttccaaa atgtcgtaac aactccgccc cattgacgca 600
140 aatgggcggt aggcgtgtac ggtgggaggt ctatataagc agagctcgtt tagtgaaccg 660
141 tcagatcgcc tggagacgcc atccacgctg ttttgacctc catagaagac accgggaccg 720
142 atccagcctc cgcggccggg aacggtgcat tggaacgcgg attccccgtg ccaagagtga 780
143 cgtaagtacc gcctatagag tctataggcc cacccccttg gcttcttatg catgctatac 840
144 tgttttttggc ttggggtcta tacacccccg cttcctcatg ttataggtga tggtatagct 900
145 tagcctatag gtgtgggtta ttgaccatta ttgaccactc ccctattggt gacgatactt 960
146 tccattacta atccataaca tggctctttg ccacaactct ctttattggc tatatgccaa 1020
147 tacactgtcc ttcagagact gacacggact ctgtattttt acaggatggg gtctcattta 1080
148 ttatttacaa attcacatat acaacaccac cgtccccagt gcccgcagtt tttattaaac 1140
149 ataacgtggg atctccacgc gaatctcggg tacgtgttcc ggaacggtgg agggcagtgt 1200
150 agtctgagca gtactcgttg ctgccgcgcg cgccaccaga cataatagct gacagactaa 1260
151 cagactgttc ctttccatgg gtcttttctg cagtcaccgt ccttgacacg gatatccagc 1320
152 acagtggcgg ccgctcgagt ctagagggcc cgtttaaacc cgctgatcag cctcgactgt 1380
153 gccttctagt tgccagccat ctgttgtttg cccctccccc gtgccttcct tgaccctgga 1440
154 aggtgccact cccactgtcc ttcctaata aaatgaggaa attgcatcgc attgtctgag 1500
155 taggtgtcat tctattctgg ggggtggggt ggggcaggac agcaagggg aggattggga 1560
156 agacaatagc aggcatgctg gggatgcggt gggctctatg gcttctgagg cggaaagaac 1620
157 cagctggggc tctaggggggt atccccacgc gccctgtagc ggcgcattaa gcgcggcggg 1680
158 tgtggtggtt acgcgcagcg tgaccgctac acttgccagc gccctagcgc ccgctccttt 1740
```

```
159 cgctttcttc ccttcctttc tcgccacgtt cgccggcttt ccccgtcaag ctctaaatcg 1800
160 ggggtccctt tagggttccg atttagtgct ttacggcacc tcgaccccaa aaaacttgat 1860
161 tagggtgatg gttcacgtac ctagaagttc ctattccgaa gttcctattc tctagaaagt 1920
162 ataggaactt ccttggggt tcgaccattg aactgcatcg tcgccgtgtc ccaaaatatg 1980
163 gggattggca agaacggaga cctaccctgg cctccgctca ggaacgagtt caagtacttc 2040
164 caaagaatga ccacaacctc ttcagtggaa ggtaaacaga atctggtgat tatgggtagg 2100
165 aaaacctggt tctccattcc tgagaagaat cgacctttaa aggacagaat taatataatt 2160
166 ctcagtagag aactcaaaga accaccacga ggagctcatt ttcttgccaa aagttttggat 2220
167 gatgccttaa gacttattga acaaccggaa ttggcaagta aagtagacat ggtttggata 2280
168 gtcggaggca gttctgttta ccaggaagcc atgaatcaac caggccacct cagactcttt 2340
169 gtgacaagga tcatgcagga atttgaaagt gacacgtttt tcccagaaat tgatttgggg 2400
170 aaatataaac ttctcccaga atacccaggc gtcctctctg aggtccagga ggaaaaaggc 2460
171 atcaagtata agtttgaagt ctacgagaag aaagactaag tatacaactt gtttattgca 2520
172 gcttataatg gttacaaata aagcaatagc atcacaaatt tcacaaataa agcattttt 2580
173 tcactgcatt ctagttgtgg tttgtccaaa ctcatcaatg tatcttatca tgtctggtat 2640
174 accgtcgacc tctagctaga gcttggcgta atcatggtca tagctgtttc ctgtgtgaaa 2700
175 ttgttatccg ctcacaattc cacacaacat acgagccgga agcataaagt gtaaagcctg 2760
176 gggtgcctaa tgagtgagct aactcacatt aattgcgttg cgctcactgc ccgctttcca 2820
177 gtcgggaaac ctgtcgtgcc agctgcatta atgaatcggc caacgcgcgg ggagaggcgg 2880
178 tttgcgtatt gggcgctctt ccgcttcctc gctcactgac tcgctgcgct cggtcgttcg 2940
179 gctgcggcga gcggtatcag ctcactcaaa ggcggtaata cggttatcca cagaatcagg 3000
180 ggataacgca ggaaagaaca tgtgagcaaa aggccagcaa aaggccagga accgtaaaaa 3060
181 ggccgcgttg ctggcgtttt tccataggct ccgcccccct gacgagcatc acaaaaatcg 3120
182 acgctcaagt cagaggtggc gaaacccgac aggactataa agataccagg cgtttccccc 3180
183 tggaagctcc ctcgtgcgct ctcctgttcc gaccctgccg cttaccggat acctgtccgc 3240
184 ctttctccct tcgggaagcg tggcgctttc tcatagctca cgctgtaggt atctcagttc 3300
185 ggtgtaggtc gttcgctcca agctgggctg tgtgcacgaa ccccccgttc agcccgaccg 3360
186 ctgcgcctta tccggtaact atcgtcttga gtccaacccg gtaagacacg acttatcgcc 3420
187 actggcagca gccactggta acaggattag cagagcgagg tatgtaggcg gtgctacaga 3480
188 gttcttgaag tggtggccta actacggcta cactagaagg acagtatttg gtatctgcgc 3540
189 tctgctgaag ccagttacct tcggaaaaag agttggtagc tcttgatccg gcaaacaaac 3600
190 caccgctggt agcggtggtt tttttgtttg caagcagcag attacgcgca gaaaaaaagg 3660
191 atctcaagaa gatcctttga tcttttctac ggggtctgac gctcagtgga acgaaaactc 3720
192 acgttaaggg attttggtca tgagattatc aaaaaggatc ttcacctaga tccttttaaa 3780
193 ttaaaaatga agttttaaat caatctaaag tatatatgag taaacttggt ctgacagtta 3840
194 ccaatgctta atcagtgagg cacctatctc agcgatctgt ctatttcgtt catccatagt 3900
195 tgcctgactc cccgtcgtgt agataactac gatacgggag ggcttaccat ctggccccag 3960
196 tgctgcaatg ataccgcgag acccacgctc accggctcca gatttatcag caataaacca 4020
197 gccagccgga agggccgagc gcagaagtgg tcctgcaact ttatccgcct ccatccagtc 4080
198 tattaattgt tgccgggaag ctagagtaag tagttcgcca gttaatagtt tgcgcaacgt 4140
199 tgttgccatt gctacaggca tcgtggtgtc acgctcgtcg tttggtatgg cttcattcag 4200
200 ctccggttcc caacgatcaa ggcgagttac atgatccccc atgttgtgca aaaaagcggt 4260
201 tagctccttc ggtcctccga tcgttgtcag aagtaagttg gccgcagtgt tatcactcat 4320
202 ggttatggca gcactgcata attctcttac tgtcatgcca tccgtaagat gcttttctgt 4380
203 gactggtgag tactcaacca agtcattctg agaatagtgt atgcggcgac cgagttgctc 4440
204 ttgcccggcg tcaatacggg ataataccgc gccacatagc agaactttaa aagtgctcat 4500
205 cattggaaaa cgttcttcgg ggcgaaaact ctcaaggatc ttaccgctgt tgagatccag 4560
206 ttcgatgtaa cccactcgtg cacccaactg atcttcagca tcttttactt tcaccagcgt 4620
207 ttctgggtga gcaaaaacag gaaggcaaaa tgccgcaaaa aagggaataa gggcgacacg 4680
```

```
159 cgctttcttc ccttcctttc tcgccacgtt cgccggcttt ccccgtcaag ctctaaatcg 1800
160 ggggtccctt tagggttccg atttagtgct ttacggcacc tcgaccccaa aaaacttgat 1860
161 tagggtgatg gttcacgtac ctagaagttc ctattccgaa gttcctattc tctagaaagt 1920
162 ataggaactt ccttgggggt tcgaccattg aactgcatcg tcgccgtgtc ccaaaatatg 1980
163 gggattggca agaacggaga cctaccctgg cctccgctca ggaacgagtt caagtacttc 2040
164 caaagaatga ccacaacctc ttcagtggaa ggtaaacaga atctggtgat tatgggtagg 2100
165 aaaacctggt tctccattcc tgagaagaat cgacctttaa aggacagaat taatataatt 2160
166 ctcagtagag aactcaaaga accaccacga ggagctcatt ttcttgccaa aagttttggat 2220
167 gatgccttaa gacttattga acaaccggaa ttggcaagta aagtagacat ggtttggata 2280
168 gtcggaggca gttctgttta ccaggaagcc atgaatcaac caggccacct cagactcttt 2340
169 gtgacaagga tcatgcagga atttgaaagt gacacgtttt tcccagaaat tgatttgggg 2400
170 aaatataaac ttctcccaga atacccaggc gtcctctctg aggtccagga ggaaaaaggc 2460
171 atcaagtata agtttgaagt ctacgagaag aaagactaag tatacaactt gtttattgca 2520
172 gcttataatg gttacaaata aagcaatagc atcacaaatt tcacaaataa agcattttt 2580
173 tcactgcatt ctagttgtgg tttgtccaaa ctcatcaatg tatcttatca tgtctggtat 2640
174 accgtcgacc tctagctaga gcttggcgta atcatggtca tagctgtttc ctgtgtgaaa 2700
175 ttgttatccg ctcacaattc cacacaacat acgagccgga agcataaagt gtaaagcctg 2760
176 gggtgcctaa tgagtgagct aactcacatt aattgcgttg cgctcactgc ccgctttcca 2820
177 gtcgggaaac ctgtcgtgcc agctgcatta atgaatcggc caacgcgcgg ggagaggcgg 2880
178 tttgcgtatt gggcgctctt ccgcttcctc gctcactgac tcgctgcgct cggtcgttcg 2940
179 gctgcggcga gcggtatcag ctcactcaaa ggcggtaata cggttatcca cagaatcagg 3000
180 ggataacgca ggaaagaaca tgtgagcaaa aggccagcaa aaggccagga accgtaaaaa 3060
181 ggccgcgttg ctggcgtttt tccataggct ccgcccccct gacgagcatc acaaaaatcg 3120
182 acgctcaagt cagaggtggc gaaacccgac aggactataa agataccagg cgtttccccc 3180
183 tggaagctcc ctcgtgcgct ctcctgttcc gaccctgccg cttaccggat acctgtccgc 3240
184 ctttctccct tcgggaagcg tggcgctttc tcatagctca cgctgtaggt atctcagttc 3300
185 ggtgtaggtc gttcgctcca agctgggctg tgtgcacgaa ccccccgttc agcccgaccg 3360
186 ctgcgcctta tccggtaact atcgtcttga gtccaacccg gtaagacacg acttatcgcc 3420
187 actggcagca gccactggta acaggattag cagagcgagg tatgtaggcg gtgctacaga 3480
188 gttcttgaag tggtggccta actacggcta cactagaagg acagtatttg gtatctgcgc 3540
189 tctgctgaag ccagttacct tcggaaaaag agttggtagc tcttgatccg gcaaacaaac 3600
190 caccgctggt agcggtggtt ttttttgtttg caagcagcag attacgcgca gaaaaaaagg 3660
191 atctcaagaa gatcctttga tctttttctac ggggtctgac gctcagtgga acgaaaactc 3720
192 acgttaaggg attttggtca tgagattatc aaaaaggatc ttcacctaga tccttttaaa 3780
193 ttaaaaatga agttttaaat caatctaaag tatatatgag taaacttggt ctgacagtta 3840
194 ccaatgctta atcagtgagg cacctatctc agcgatctgt ctatttcgtt catccatagt 3900
195 tgcctgactc cccgtcgtgt agataactac gatacgggag ggcttaccat ctggccccag 3960
196 tgctgcaatg ataccgcgag acccacgctc accggctcca gatttatcag caataaacca 4020
197 gccagccgga agggccgagc gcagaagtgg tcctgcaact ttatccgcct ccatccagtc 4080
198 tattaattgt tgccgggaag ctagagtaag tagttcgcca gttaatagtt tgcgcaacgt 4140
199 tgttgccatt gctacaggca tcgtggtgtc acgctcgtcg tttggtatgg cttcattcag 4200
200 ctccggttcc caacgatcaa ggcgagttac atgatccccc atgttgtgca aaaaagcggt 4260
201 tagctccttc ggtcctccga tcgttgtcag aagtaagttg gccgcagtgt tatcactcat 4320
202 ggttatggca gcactgcata attctcttac tgtcatgcca tccgtaagat gcttttctgt 4380
203 gactggtgag tactcaacca agtcattctg agaatagtgt atgcggcgac cgagttgctc 4440
204 ttgcccggcg tcaatacggg ataataccgc gccacatagc agaactttaa aagtgctcat 4500
205 cattggaaaa cgttcttcgg ggcgaaaact ctcaaggatc ttaccgctgt tgagatccag 4560
206 ttcgatgtaa cccactcgtg cacccaactg atcttcagca tcttttactt tcaccagcgt 4620
207 ttctgggtga gcaaaaacag gaaggcaaaa tgccgcaaaa aagggaataa gggcgacacg 4680
```

```
208 gaaatgttga atactcatac tcttcctttt tcaatattat tgaagcattt atcagggtta 4740
209 ttgtctcatg agcggataca tatttgaatg tatttagaaa aataaacaaa tagggggttcc 4800
210 gcgcacattt ccccgaaaag tgccacctga cgtcgacgga tcgggagatc tcccgatccc 4860
211 ctatggtgca ctctcagtac aatctgctct gatgccgcat agttaagcca gtatctgctc 4920
212 cctgcttgtg tgttggaggt cgctgagtag tgcgcgagca aaatttaagc tacaacaagg 4980
213 caaggcttga ccgacaattg catgaagaat ctgcttaggg ttaggcgttt tgcgctgctt 5040
214 cgcgatgtac gggccagata tacgcgtatg agcggataac aatttcacac aggaaacagc 5100
215 tatgaccatg attacgccaa gcttgacatt gattattgac tagttattaa tagtaatcaa 5160
216 ttacggggtc attagttcat agcccatata tggagttccg cgttacataa cttacggtaa 5220
217 atggcccgcc tggctgaccg cccaacgacc cccgcccatt gacgtcaata atgacgtatg 5280
218 ttcccatagt aacgccaata gggactttcc attgacgtca atgggtggag tatttacggt 5340
219 aaactgccca cttggcagta catcaagtgt atcatatgcc aagtacgccc cctattgacg 5400
220 tcaatgacgg taaatggccc gcctggcatt atgcccagta catgacctta tgggactttc 5460
221 ctacttggca gtacatctac gtattagtca tcgctattac catggtgatg cggttttggc 5520
222 agtacatcaa tgggcgtgga tagcggtttg actcacgggg atttccaagt ctccacccca 5580
223 ttgacgtcaa tgggagtttg ttttggcacc aaaatcaacg ggactttcca aaatgtcgta 5640
224 acaactccgc cccattgacg caaatgggcg gtaggcgtgt acggtgggag gtctatataa 5700
225 gcagagctcg tttagtgaac cgtcagatcg cctggagacg ccatccacgc tgttttgacc 5760
226 tccatagaag acaccgggac cgatccagcc tccgcggccg ggaacggtgc attggaacgc 5820
227 ggattccccg tgccaagagt gacgtaagta ccgcctatag agtctatagg cccaccccct 5880
228 tggcttctta tgcatgctat actgtttttg gcttggggtc tatacacccc cgcttcctca 5940
229 tgttataggt gatggtatag cttagcctat aggtgtgggt tattgaccat tattgaccac 6000
230 tcccctattg gtgacgatac tttccattac taatccataa catggctctt gccacaact 6060
231 ctctttattg gctatatgcc aatacactgt ccttcagaga ctgacacgga ctctgtattt 6120
232 ttacaggatg gggtctcatt tattatttac aaattcacat atacaacacc accgtcccca 6180
233 gtgcccgcag tttttattaa acataacgtg ggatctccac gcgaatctcg ggtacgtgtt 6240
234 ccggaacggt ggagggcagt gtagtctgag cagtactcgt tgctgccgcg cgcgccacca 6300
235 gacataatag ctgacagact aacagactgt tccttttccat gggtctttc tgcagtcacc 6360
236 gtccttcaca cggctagcgt agattggcgc gccaagattg cccgggcaag cggggtaccc 6420
237 tgtgccttct agttgccagc catctgttgt ttgcccctcc ccgtgccttc cttgaccct 6480
238 ggaaggtgcc actcccactg tcctttccta ataaaatgag gaaattgcat cgcattgtct 6540
239 gagtaggtgt cattctattc tggggggtgg ggtggggcag gacagcaagg gggaggattg 6600
240 ggaagacaat agcaggcatg ctggggatgc ggtgggctct atggggatcc ccaggaagct 6660
241 cctctgtgtc ctcataaacc ctaacctcct ctacttgaga ggacattcca atcataggct 6720
242 gcccatccac cctctgtgtc ctcctgttaa ttaggtcact taaacaaaaa ggaaattggg 6780
243 taggggtttt tcacagaccg ctttctaagg gtaattttaa aatatctggg aagtcccttc 6840
244 cactgctgtg ttccagaagt gttggtaaac agcccacaaa tgtcaacagc agaaacatac 6900
245 aagctgtcag ctttgcacaa gggccctttt tttttaattt ttattttatt ttattttga 6960
246 gatggagtct cgacgctctc ccttatgcga ctcctgcatt aggaagcagc ccagtagtag 7020
247 gttgaggccg ttgagcaccg ccgccgcaag gaatggtgca tgcaaggaga tggcgcccaa 7080
248 cagtcccccg gccacggggc ctgccaccat acccacgccg aaacaagcgc tcatgagccc 7140
249 gaagtggcga gcccgatctt ccccatcggt gatgtcggcg atataggcgc cagcaaccgc 7200
250 acctgtggcg ccggtgatgc cggccacgat gcgtccggcg tagag        7245
254 <210> SEQ ID NO: 3
255 <211> LENGTH: 2660
256 <212> TYPE: DNA
257 <213> ORGANISM: Homo sapiens
259 <400> SEQUENCE: 3
260 gaattcagca ctgaatcatg cccagaaccc ccgcaatcta ttggctgtgc tttggcccct 60
```

VERIFICATION SUMMARY   DATE: 05/01/2006
PATENT APPLICATION: US/10/575,696   TIME: 09:43:49

Input Set : A:\13751-019US1.TXT
Output Set: N:\CRF4\05012006\J575696.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date